

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

60. – 134. (Canceled)

135. (New) A mobile transmitting apparatus for transmitting information in a multi-node communication network, comprising:

an almost orthogonal code sequence generator that generates a subset of almost orthogonal code sequences, said subset of almost orthogonal code sequences being selected from a plurality of subsets of a set of almost orthogonal code sequences associated with the transmitting apparatus; and

a transmitter for simultaneously transmitting first signals to a first node during a first time interval and simultaneously transmitting second signals to said first node during a second time interval, said first signals including a first subset of said subset of almost orthogonal code sequences and said second signals including a second subset of said subset of almost orthogonal code sequences not identical with said first subset, wherein at least one of said first and second subsets from the set of almost orthogonal code sequences includes more than one almost orthogonal code sequence.

136. (New) The mobile transmitting apparatus of claim 135 wherein said first subset contains two or more code sequences.

137. (New) The mobile transmitting apparatus of claim 135 wherein said first subset contains two or more code sequences and said second subset contains two or more code sequences.

138. (New) The mobile transmitting apparatus of claim 135 wherein a code sequence from said first subset is based upon a particular data rate.

139. (New) The mobile transmitting apparatus of claim 135 wherein a code sequence from said first subset is based upon a first data rate and a code sequence from said second subset is based upon a second data rate different from said first data rate.

140. (New) The mobile transmitting apparatus of claim 135 wherein the first signals comprise simultaneously transmitted I and Q signals configured to respectively carry data information and control information.

141. (New) The mobile transmitting apparatus of claim 135 further comprising a modulator for modulating the first subset and the second subset onto corresponding carriers of the same frequency having different phases.

142. (New) A transmitting apparatus for transmitting information in a multi-node communication network, comprising:

an almost orthogonal code sequence generator that generates a subset of almost orthogonal code sequences and an almost orthogonal code sequence, said subset of almost orthogonal code sequences being selected from a plurality of subsets of a set of almost orthogonal code sequences associated with a mobile receiving apparatus; and

a transmitter for simultaneously transmitting to said mobile receiving apparatus first signals during a first time interval and simultaneously transmitting to said mobile receiving apparatus second signals during a second time interval, said first signals including said almost orthogonal code sequence and a first subset of said subset of almost orthogonal code sequences and said second signals including said almost orthogonal code sequence and a second subset of said subset of almost orthogonal code sequences not identical with said first subset, wherein at least one of said first and second subsets from the set of almost orthogonal code sequences includes more than one almost orthogonal code sequence.

143. (New) The transmitting apparatus of claim 142 wherein a code sequence from said first subset is based upon a first data rate and a code sequence from said second subset is based upon a second data rate different from said first data rate.

144. (New) The transmitting apparatus of claim 142 wherein said first subset contains two or more code sequences.

145. (New) The transmitting apparatus of claim 142 wherein said first subset contains two or more code sequences and said second subset contains two or more code sequences.

146. (New) The transmitting apparatus of claim 142 wherein a code sequence from said first subset is based upon a particular data rate.

147. (New) The transmitting apparatus of claim 142 wherein a code sequence from said first subset is based upon a first data rate and a code sequence from said second subset is based upon a second data rate different from said first data rate.

148. (New) The transmitting apparatus of claim 142 wherein the first signals comprise simultaneously transmitted I and Q signals configured to respectively carry data information and control information.

149. (New) The transmitting apparatus of claim 142 further comprising a modulator for modulating the first subset and the second subset onto corresponding carriers of the same frequency having different phases.

150. (New) The transmitting apparatus of claim 149 wherein the modulator uses phase shift keying (PSK).